BOEMA

Australian made coffee machines since 1956

Boema Deluxe Volumetric Coffee Machine Manual

BOEMA

Coffee Machines

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Boema Machines Servicing
Deluxe -Volumetric

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SIX MONTHLY SERVICE BOEMA "MACHINES" CAFFE & DELUXE

EG600-1C	O'RING CAPPING NUT
EG600-1D	MESH FILTER
EG600-1E	JET
EG600-1H	O'RING MID GROUP
EG600-1K	SHOWER
EG600-1M	CUP WASHER
EG600-1N1	3 WAY SOLENOID O'RING x 2
EC360-1A	ANTI VACUUM VALVE
F-AX5-TS	WATER FILTER TRIPLE ACTION **(for Caffe & Deluxe's)**
EK650-1A	MR. BOEMA CLEANER

When replacing water filter make sure water outlet hose has been disconnected from Machine so water filter is able to be flushed. Flush around ½ bucket of water.

Items 1 – 7 Double the part quantities for a 2 Group machine
Items 1 – 7 Triple the part quantities for a 3 Group machine

To help with warranty and care of the machine it is highly recommended to have your machine serviced every 6 months.

SERVICE TEAM

6 MONTHLY SERVICE

PROCEDURE

1. Replace water filter, hose-tail and clamp.
2. Remove cup washer, shower and brass insert with steel wool and unblock all the holes. Remove any coffee left inside the group head and clean inside the group head with steel wool. Replace new O'Ring for capping nut (EG600-1C), Mesh filter (EG600-1D), Jet (EG600-1E), Mid to group Bell (EG600-1H), Cup Washer (EG600-1M), Shower (Eg600-1K)
3. Replace O'Rings under 3 way Solenoid
4. Back-flush group head with Mr. Boema as per instruction on jar. Note: use only ½ teaspoon.
5. Flush hot water out of boiler through hot water spout.
6. Replace vacuum valve.
7. check all pipe connections for leeks.

PARTS REQUIRED FOR 6 MONTHLY SERVICE

Cup Washer
Shower
O'Ring for capping nut
O'Ring – mid to group bell
Mesh filter
Jet
O'Ring solenoid – 3 way x 2
Water filter
Vacuum Valve
Mr Boema
Service
Labour

For each additional group add

1x Cup Washer
1x Shower
2x O'ring Solenoid-3way
1x O'ring for capping Nut
O'ring-mid to group bell
Mesh Filter
Jet

The above parts only should be included in a 6 Month service

Please note that machines with serial numbers starting with B08xxxx has an E61 Grouphead which require a different service kit.

Boema Deluxe (2 Group)(with old 3 part main switch)

Steam Knob

Hot Water Knob

Rocker Switches
(Manual coffee extraction)

Steam Knob

Element
Indicator Light

Steam Gauge

Water Pressure Gauge

Steam Arm

Hot Water Spout

Group Handle
(Double/Single)

Touch Pads

1. Single Shot Espresso
2. Single Long Espresso
3. Double Short Espresso
4. Double Long Espresso
5. Manual delivery/re-program button

On/Off Switch

Manual fill (for Technician use only)

Safety Indicator Light (no water to machine)

CLEANING PROCEDURE
(Caffe/Deluxe-black & silver Touch Pads)

As coffee is the stone of the coffee fruit, which contains oils, this oil from the coffee bean remains in the machine after heating, this can quickly make it rancid, causing the fresh coffee being extracted to smell and taste offensively.
To remove this oil backwashing of the heads is required on a regular basis. (at least every day)

BACKWASHING/SHOWERS AND CLEANING

Using the BLIND Filter

1. Remove existing filter and replace with the **Blind** filter & add ½ teaspoon of (Mr. Boema) detergent.
2. a. If Boema Maestro (blue touch pads) – press **star** button plus **short black** for cleaning cycle to begin.
   b. If Boema Deluxe/Caffe (black/silver touch pads) turn machine off hold finger on double short whilst doing this turn machine on and washing cycle will start.
   c. Other older machines, turn yellow toggle switch on for 5 seconds stop and leave for 5 seconds repeat this 8 – 10 time loosen handle, activate group jiggle handle in and out, rinse blind filter – repeat was cycle again without detergent.

Removing the Shower

Remove the centre screw of the shower which when removed will fall out to be cleaned making sure when you hold it to the light you can see through the holes. (if stubborn stain – soak in detergent for 15 minutes then scour to remove stains – or you may need to purchase new showers and replace).

Group Handles

The single cup filter and double cup filter need to be removed daily to clean the inside of the handles where oil can build up.

Steam Arms

NEVER soak the steam arms in a glass of water, soda or any other detergent not specially designed to clean Steam Arms. Just wipe the steam arms with a clean wet cloth after each use. If a build up does occur wrap a clean wet cloth around steam arm direct it into the drip tray and turn on the steam tap for 10 second then leave for a further 10 minutes, the milk build up should soften and removed easily.

Drip Tray and under Machine

Carefully remove inner and outer drain trays and wash each item with hot soapy water, clean under the machine then replace trays.

The rule of thumb for cleaning a machine varies with the amount of kilos that goes through the machine, the more a machine is used the more you clean. It is a beverage (food) making machine - the only rule

GENERAL CARE OF ESPRESSO COFFEE MACHINES

Start of Day

1. Turn on water to machine.
2. Turn on power to machine.
3. Open at least one steam jet. Allow steam to escape from steam jet with some pressure before closing (allow 5-10 minutes for this to occur). Pressure will now build up quickly. By doing this, you have ensured that you do not have a negative pressure vessel nor a false pressure reading. If you have a false pressure reading, you may find that when you go to make a cappuccino you will not have the required steam.

End of Day

1. It is recommended you turn off the machine at the power source every night to save on electricity and to allow you to turn off the water to the machine.

2. Turn water off to the machine. If mains pressure builds up over night you could end up with a flood.

Daily Care

Look for the opportunity, best at the end of the day, to take approximately 1 litre of water from the machine through the hot water spout every day.

This allows a fresh supply of water to circulate through the machine and helps flush out elements that may otherwise build up in the boiler.

Note: The water from the groups, (where coffee is made), does not come from the boiler, and thus making coffee does not allow circulation of the water inside the boiler.

Steaming Milk

Purge steam pipe after foaming milk, this will make sure there is no milk resting inside the steam mozzle. Milk can build up inside the nozzle and cause a smell. It is also then likely to be sucked up into the boiler.

Soaking nozzle and pipe over night is not recommended, nor is the use of knives or steel wool to clean the steam arm.

Group Care

1. When making coffee ensure any coffee around the rim of the group cup is brushed off before fitting into the group. This will prolong the life of the seal..

2. We recommend using Knock Tubes.

3. Cup Washer (Rubber Seal) should be clean at all times. If necessary clean with soft brush or cloth to ensure proper sealing with Group Cup

4. Cleaning internals of Group Head should be done with Mr. Bo-Ema (Refer Group Maintenance instruction).

IMPORTANT NOTE

The Red Light (if it has a 3-part switch, it is a Yellow Light) is a warning light to let you know that there is not enough water in or going into the machine. If the light remains on the machine will not heat up as the electricity will be cut off from the heating element. This is a precautionary measure to stop the element from burning out.

The red light on the same switch is to indicate that the power is on to the machine.

The pilot light above the gauge comes on to indicate that the machine is heating up and goes off when the machine reaches the maximum pressure set. The pressure switch will automatically turn the element on and off to keep it at the right temperature and so the light will go on and off.

GROUP MAINTENANCE

NOTE: Regular cleaning will result in less maintenance being required by a service man and prolong the life of group parts, including the 3-Way Solenoid Valve. It will also maintain the quality of coffee you produce.

We would suggest commencing the procedure below once a week for a period of 3 weeks after which time you will be best able to gauge for yourself the regularity of maintenance that best suits your machine.

STEP 1: Remove shower and brass insert by loosening locating screw underneath group (best done with flat bladed stubbie screw driver).

STEP 2: Thoroughly clean shower using steel wool; the shower has many holes, all these holes should be clean for best operation.

If shower remains blocked you may use utensils to hold shower over a flame (without letting it glow red, as it will distort). Allow to cool slowly and clean with steel wool.

STEP 3: Replace shower and brass insert to group.

STEP 4: After fitting blind filter to Group cup handle, place ½ teaspoon of "Mr Bo-Ema" in blind filter, place cup handle into Group firmly.

STEP 5: Using manual switch, turn group on for five (5) seconds at a time.

Note: After switching off, watch for exhaust of pressure at rear of Group, this must happen at the end of each operation.

The first exhaust will normally be clear water, the next should be white froth, the third should be brown froth,

Continue five (5) second operations until exhaust returns to white froth.

NOTE: If exhaust returns to clear water the soap has run out. Remove handle and top up again with another ½ teaspoon of "Mr Bo-Ema" and continue.

STEP 6: Once froth has turned white - remove handle, rinse clean, replace in group without “Mr Bo-Ema”. Operate now for 3 lots of five (5) seconds, this will flush remaining powder from group. Upon removal of handle take note of colour of water in blind filter - if water is clear, the group is clean; if water is brown, repeat step 5 until clean.

WARNING: AFTER EACH FIVE (5) SECOND OPERATION PRESSURE RELIEF THROUGH THE EXHAUST MUST OCCUR EACH TIME.

If pressure is not relieved **DO NOT** continue five (5) second operations as pressure build up could cause handle to explode off from group.

TO CLEAR BLOCKED PRESSURE RELIEF FOLLOW THE STEPS OUTLINED BELOW:

STEP 1: Leave Group cup inserted for at least one minute.

STEP 2: Relieve the pressure; manually, by tightly holding handle and carefully removing, slowly until the pressure is released. Tap the handle as if removing a radiator cap.

STEP 3: With fresh “Mr Bo-Ema” repeat five (5) second operation again watching for exhaust to occur. If exhaust still doesn’t occur repeat steps 1 & 2, two to three times.

If on third time exhaust does not occur leave group cup inserted for at least ten (10) minutes. As “Mr Bo-Ema” is a non toxic substance that eats organic matter the pressure should be released. If successful, resume normal operation. If not, call your Serviceman.

VOLUMETRIC – TOUCH PAD/DELIVERY CONTROL (ALL IN ONE)

PULSE BREW TYPE (Pink/Grey)

(Please ensure you have read your General Care instructions first)

Pulse Brew is when a jet of water is first sprayed onto your ground coffee prior to commencement of the main brewing cycle. The object is to enhance the flavour of the brew. As the experts advise, there is also a minimum and maximum brewing time to optimise your flavour – Pulse Brew is most commonly thought to be useful for the shorter deliveries.

The machine may already be in Pulse Brew mode or you may have to enter same.

To enter Pulse Brew mode:

1. The machine must first be turned off at the 3-part switch located at the right hand side at the base of the machine.
2. While depressing the "Short Black" symbol on your touch pad (picture to far left) turn the power back on at the 3-part switch – the lights will come on above the Short Black key and two Short Blacks key only, as these will be the only deliveries that will engage the Pulse Brew mode.
3. Press the power off at the 3-part switch, then press the power back on – lights on the touch pad display will not remain on and the touch pad will be in operation mode with Pulse Brew.

Should you not wish for Pulse Brew, normal operation may be reset as follows:

1. Turn the power off at the 3-part switch as above.
2. While depressing the "Long Black" key (2nd from the left), turn the power back on at the 3-part switch – the light will come on above the Long Black key.
3. Press the power off at the 3-part switch, then press the power back on – normal operation will now be resumed.

PAGE 2 – VOLUMETRIC – TOUCH PAD/DELIVERY CONTROL (ALL ONE)

TOUCH PAD OPERATION

Your machine has been delivered to you with programmed deliveries for Short Black, Long Black, two Short Blacks & two Long Blacks. Delivery commences once you press the desired key for your selection and will automatically stop once the programmed level has been achieved. Should you wish to halt delivery prior to full delivery from the programmed cycle, simply press the same selection key again.

The * symbol on the touch pad is operated for manual delivery. Depress the * to commence delivery; depress * again to stop delivery.

To change settings:

1. Put your cup underneath the Group you wish to deliver from.
2. Hold the * key depressed until the lights above the selection keys all come on, signifying programming mode..
3. Press the key representing the delivery you wish to alter – delivery commences with the light remaining on only above the key being programmed and above the * key.
4. When the desired delivery is achieved, press the same key again – delivery stops – the light goes out above the key now reprogrammed – the lights reappear above the keys that have not had their deliveries reset and remains on above the * key, signifying programme mode.
5. Whilst the lights remain on signifying programming mode you may move to another selection or readjust the same selection, even though the light does not appear above that selection key.
6. When the light goes out above the * key and above the keys which have not had their settings altered, the machine has returned to normal operation mode.
   - Return to Step 2 if you wish to continue with programming.
   - For multiple programme settings we suggest you have a number of cups ready.

WARNING The programme allows only a very short time to proceed to the next setting prior to going out of programme mode.

Should this happen, the settings you have achieved will remain. To adjust those deliveries not yet set by you, you need to go back to Step 2, and then proceed directly to the key pad that you wish to set.

HANDY HINT Have handy the number of empty cups to suit the number of deliveries you wish to do or simply stick to re-entering programme mode for adjustment of one delivery at a time.

We hope you find this service useful.

BOEMA Coffee Machines Pty.Ltd. Since 1956

BOEMA 1d5e Operating Instructions

K1EXP		Stop/Start 1 Espresso coffee cycle
K1LNG		Stop/Start 1 Long coffee cycle
K2EXP		Stop/Start 2 Espresso coffee cycle
K2LNG		Stop/Start 2 Long coffee cycle
KCONT		Stop/Start for continues /Program cycle

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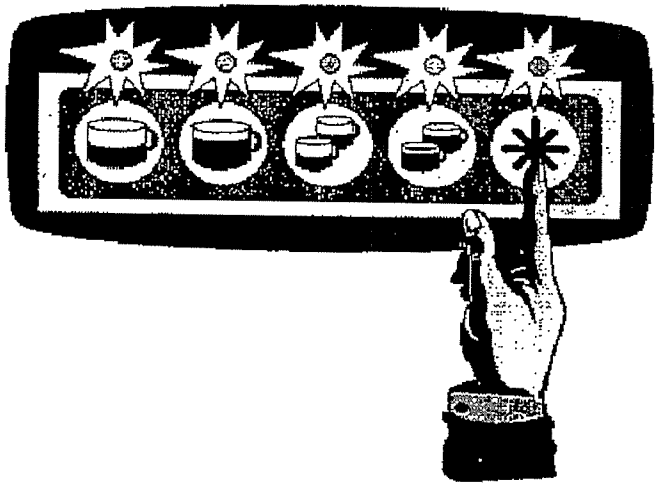
PROGRAMMING COFFEE DOSES

It is possible to modify the quantities related to the coffee doses through volumetric control and memorize them in the EEPROM inside the micro-controller by means of the following procedure:

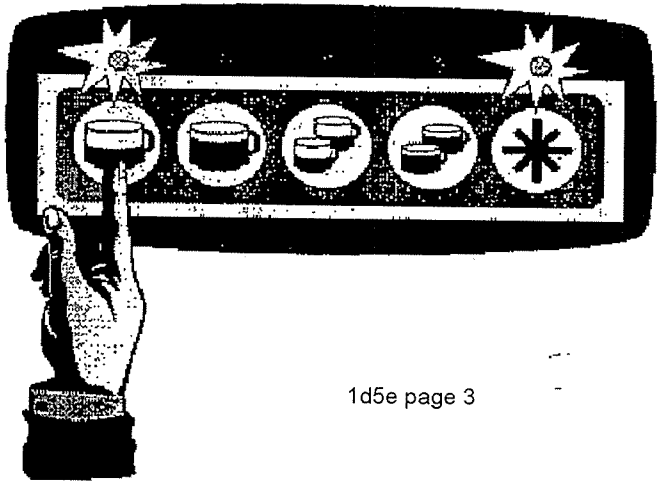
1. Press the KCONT pad for more than 5 seconds and check that all of the programming LED's on the keyboard light up.



To exit programming mode please wait 20 seconds (programming time out).

The maximum Doses programming time is 4 minutes.

2. Within 20 seconds press any of the pads related to the 4 doses which can be programmed (example K1EXP as shown). The LED related to the KCONT pad remains on.

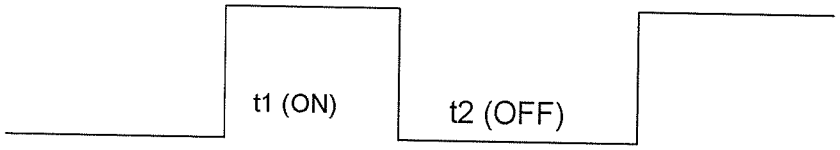


3. When the desired coffee dose is reached, press the same pad to stop the dispensation and the new value of the coffee dose is memorized in the EEPROM. The coffee doses not programmed and the KCONT LED's will light up.

4. For the other doses programming repeat steps 2 & 3 within 20 seconds.

PRE-INFUSION

With pre-infusion the normal dispensing cycle is preceded by a timed short water spout, used to moisten the coffee before starting the actual dispensing



At the Doses start, after t1 time "ON" the groups solenoid valve is switched "OFF" until the t2 time

1. To turn Pre-infusion "ON" press K1EXP pad and turn on the power to the machine at the same time. K1EXP and K2EXP Leds will light up.

2. To turn Pre-infusion "OFF" press K1LNG pad and turn on the power to the machine at the same time K1LNG and K2LNG Leds will light up.

For K1EXP t1 is 0.6 seconds and t2 is 1.2 seconds.
For K2EXP t1 is 0.8 seconds and t2 is 1.6 seconds.

Continous coffee Dose

By pressing KCONT dose pad dispensing will commence and continue until KCONT dose pad is pressed once more. At the same time KCONT light will be on

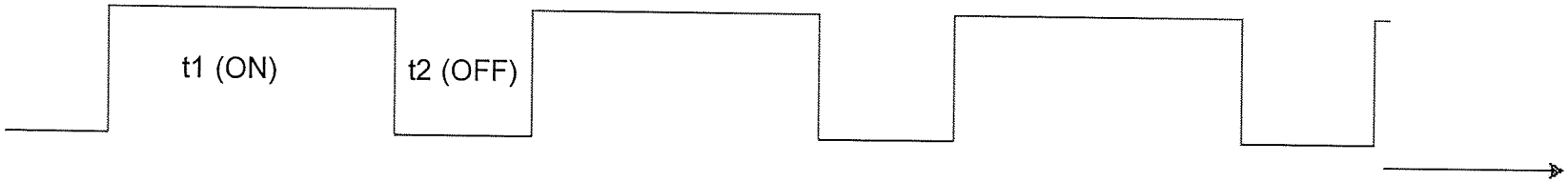
KCONT

Lack of Flowmeter Impulses

If no impulses are detected for more than 5 seconds the LED related to the selected dose will start blinking and still dispensing. After 4 minutes the dispensing is stopped with the LED still blinking until a new selection is made.

Washing Cycle

The washing cycle allows for the coffee group's cleaning by turning on the pump and the coffee group's dispensing solenoid "ON" and "OFF" as follows.



At the start, after t1 time "ON" the groups solenoid valve is switched "OFF" until the t2 time. This "ON" "OFF" cycle continues until the washing cycle is completed. Once the washing cycle is completed, the system returns automatically to its normal state.

1. To start washing cycle press K2EXP pad and turn on the power to the machine at the same time. K1LNG and K2EXP Leds will be blinking, indicating that the washing cycle is enabled.

K2EXP + Power ON

2. Please Note: It is not possible to stop a washing cycle. The washing cycle can be performed each time it is desired during the day.

t1 is "ON" for 7 seconds and t2 is "OFF" for 3 seconds
It is not possible to stop a washing cycle, so please wait for it's ending before performing coffee selection.

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BOEMA 1d5e Quick Reference

Page 3	Coffee Doses Programming	KCONT		> 5 seconds
Page 4	Pre-Infusion ON	K1EXP		+ Power ON
Page 4	Pre-Infusion OFF	K1LNG		+ Power ON
Page 6	Washing Cycle	K2EXP		+ Power ON

JUST AS A FRIENDLY REMINDER BEFORE AND AFTER FROTHING OF MILK,
GIVE YOUR STEAM TAP A QUICK BLAST OF STEAM – THIS CAN PREVENT TANK CONTAMINATION AND THE POSSIBILITY OF A TANK CLEAN WHICH COULD BE A VERY EXPENSIVE PROCEDURE.

WHEN STARTING YOUR MACHINE IN THE MORNING LEAVE YOUR STEAM TAP OPEN UNTIL STEAM COMES OUT, THIS PREVENTS VACUUM PRESSURE

GENERAL SERVICE KIT
ALL ORIGINAL/CLASSIC/CAFFE/DELUXE

Part No.	Name
EG600-1C	O'Ring for Capping Nut
EG600-1D	Mesh Filter Grouphead
EG600-1E	Jet Grouphead
EG600-1H	O'Ring Mid to Group Bell
EG600-1M	Cup Washer O'Ring style
EG600-1K	Shower with Centre Hole
EG600-1N1	O'Ring Solenoid 3-Way (each)
EC360-1A	Anti Vacuum Valve
EK650-1A	Mr. Boema Cleaner
F-AX5-TS	Abxolut Quick Change Water Filter

Please note that machines with serial numbers starting with B08xxxx has an E61 Grouphead which require a different service kit.